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COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 9-9-94 ☐ [illegible]

A shortened statutory period for response to this action is set to expire 3 month(s), ____ days from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.
2. ☐ Notice re Patent Drawing, PTO-948.
3. ☐ Notice of Art Cited by Applicant, PTO-1449.
4. ☐ Notice of Informal Patent Application, Form PTO-152
5. ☐ Information on How to Effect Drawing Changes, PTO-1474.
6. ☐ _____

Part II SUMMARY OF ACTION

1. ☒ Claims 1-12, 14, 16, 18-34 AND 44-48 are pending in the application.

   Of the above, claims NONE are withdrawn from consideration.

2. ☒ Claims 13, 15, 17 AND 35-43 have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 1-12, 14, 16, 18-34 AND 44-48 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☒ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).

12. ☒ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☒ been filed in parent application, serial no. 07/302,332 ; filed on 1-27-89.

13. ☐ Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

1. Regarding the reissue oath or declaration. It is noted that applicant has provided a "proposed" supplemental reissue declaration which has not been signed. Since the paper is unsigned, it may not be relied upon to correct the defects in the original reissue declaration.

2. Claims 1-12, 14, 16, 18-34 and 44-48 are rejected as being based upon a defective reissue declaration under 35 U.S.C. § 251. See 37 C.F.R. § 1.175.

3. The reissue oath or declaration filed with this application is defective because it lacks precise statements "distinctly specifying the excess or sufficiency in the claims" as required by 37 CFR 1.175 (a)(3).

Merely relisting the subject matter of each new claim does not meet the requirements of 37 CFR 1.175 (a)(3). Instead, applicants should distinctly specify the added or deleted subject matter of each new claim vis-a-vis the claim s of the original patent. I.e. how each new claim differs from its closest counterpart claim in the patent (See MPEP 1414.01).

4. The reissue oath or declaration filed with this application is also defective because it fails to particularly specify the errors relied upon, as required under 37 C.F.R. § 1.175(a)(5).

The recitation of the additional claims and the very minor differences does not meet the requirement to "particularly specify the errors relied upon."

The reissue oath or declaration filed with this application is defective because it fails to particularly specify how the errors relied upon arose or occurred, as required under 37 C.F.R. § 1.175(a)(5).

This rejection is directed to the new claims in the application. It is unclear why 36 claims are required to correct errors in the 8 original claims. It is unclear whether the applicant is really continuing prosecution rather than correcting errors (see In re Weiller, 229 USPQ 673). What was the void in the protection (provided by the patent claims) that necessitated all of the added claims.

Applicant is required to provide details regarding the above questions with respect to all of the added claims.

5. Claims 21, 22, 28-34 and 42 are rejected under 35 U.S.C. § 251 as not being directed to "the invention" disclosed in the original application. See MPEP 1412.01 and cases cited therein.

The original application expressly indicates the invention is an apparatus. E.g. see:

a. Title - "Graphic processing apparatus..."

b. Background - "The present invention relates to a graphic processing apparatus"

c. Summary - "object of the present invention is to provide a... processing apparatus" and "in the... apparatus according to the present invention"

d. Figures - figures 1, 2, 4 and 5a-c show apparatus but none of the figures show a flow chart describing the method.

Since the original application indicates that the apparatus itself is the invention and does not indicate that the method is also the invention, method claims 21, 22, 28-34 and 42 are rejected under 35 U.S.C. § 251 as not being directed to "the invention" disclosed in the original application.

6. Claims 14, 18, 19, 24, 25, 28-34, 36, 37, 39, 42, 43, 47 and 48 are rejected under 35 U.S.C. § 251 as not being directed to "the invention" disclosed in the original application. See MPEP 1412.01 and cases cited therein.

Claims 14, 18, 19, 24, 25, 28-34, 36, 37, 39, 42, 43, 47 and 48 are directed to accessing memory within predetermined time periods while "the invention" disclosed in the original application is for an apparatus having the disclosed architecture in order to reduce the size and cost of the apparatus.

7. Claims 1, 2, 8-12, 14, 16, 18-34 and 44-48 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. "in a time shared fashion" is unclear as to the precise scope and meaning of the language (claims 9-12, 14, 18, 21, 22, 23, 28, 32, 44, 45)

b. "m(n) bit terminals" is unclear as to the precise scope and meaning of the language (claims 11, 12, 23, 24).

c. "said segmented m bits" lacks proper antecedent basis (claim 14, line 2).

d. "said sequential m bits" lacks proper antecedent basis (claim 18, line 2).

e. it is not clear why the same m bit data is read or written plural times (claims 18, 28, 32, 33, 47).

f. "an address of specified" is unclear as to the precise scope and meaning of the language (claim 18, line 5).

g. "said predetermined unit of time" lacks proper antecedent basis (claim 19, line 5).

h. it is not clear why data is read sequentially over an m bit parallel data bus (claims 1, 2, 8, 10, 11, 12, 14, 18, 21, 22, 23, 24,

i. it is not clear what is referred to by "each" (claim 32, line 7).

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 4-7 are rejected under 35 U.S.C. § 102(e) as being anticipated by Lymelsky et al. (4,823,286).

a. As per independent claim 4, Lymelsky et al. show in figure 1 a system which includes a memory means (20), data processing means (18) and output means (output from memory 20 to a monitor). The memory control means is shown in figures 8-11 and 15-17.

b. As per dependent claim 5, Lymelsky et al. show in figure 2 that each pixel include plural bits.

c. As per dependent claim 6, Lymelsky et al. disclose a system which allows for selection of the number of bits accessed for each pixel (figures 3-7 show the different access modes allowing for 8, 4 or 1 bit per pixel to be accessed).

d. As per dependent claim 7, Lymelsky et al. disclose at column 10, lines 61-66 that a register is provided to temporarily store the data.

9. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claims 1-3, 8-12, 14, 16, 18-34 and 44-48 are rejected under 35 U.S.C. § 103 as being unpatentable over Graciotti (4,716,527).

a. As per independent claims 1-3, 8-12, 21-23, 28, 32 and 44, Graciotti discloses at column 3, lines 1-50 a system which converts data to make an m byte wide data bus compatible with an n byte wide data bus (where n > m) by arranging or extracting upper and lower portions. Graciotti discloses at column 3, lines

9-11 and 48-50 that the operation is bidirectional. Graciotti further discloses at column 5, line 34 through column 6, line 36 that means are provided for selecting the lower byte and higher byte. It is noted that Graciotti does not explicitly disclose that graphics data is processed, however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Graciotti as claimed because Graciotti discloses a bus conversion system for use in a general processing system and such systems are often used to process graphics data.

b. As per dependent claims 14, 18, 19, 24, 25, 33, 46, 47 and 48, Graciotti discloses a system which changes a single 16-bit memory access into two 8-bit memory accesses within a predetermined time (the time for the two 8-bit memory accesses).

c. As per dependent claims 16, 20, 26, 29, 30, 31 and 34, Graciotti discloses that each m (8) bit portion is either the upper or lower portion of the n (16) bit data.

d. As per dependent claim 27, Graciotti shows in figure 1 that storage means (31, 38 and 39) are provided for temporarily storing data.

e. As per dependent claim 45, it is noted that Graciotti does not explicitly disclose a multiplexor, however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include this feature because Graciotti

does disclose a system which selects between two portion of a word and multiplexors are often used to perform such selections.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gupta et al. (4,903,217) disclose generating a plurality of memory accesses from a single processor request.

Scheuneman (4,633,434) discloses a system which interfaces busses of different sizes (72 bits and 144 bits).

11. Because of the new grounds for rejection, this action is made NON-FINAL.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Zimmerman whose telephone number is (703) 305-9798. The examiner can normally be reached on Monday-Thursday from 7:00 AM - 5:30 PM. The fax phone number for this Group is (703) 305-9564.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

MARK K. ZIMMERMAN
PRIMARY EXAMINER
GROUP 2300

MZ

February 16, 1995